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dissolved in 10g methyl ethyl ketone was added to the first mentioned foam mixture. After vigorous mixing for about 3 minutes the foams were mixed carefully during about 2 minutes.

IN THE CLAIMS:

Kindly amend Claims 1-7 as follows.

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1. (Amended) A liquid absorbing material comprising an open-cell polymeric foam material, the foam material being suitable for use as an absorbent structure in absorbent articles, the foam material having an absorption rate at wetting of at least 0.4 ml/s for a

round sample having a 50 mm diameter, a liquid distribution capacity at an inclination of 30° of at least 15 g/g and a liquid storage capacity of at least 9% measured through centrifuge retention capacity, for synthetic urine test liquid.

2. (Amended) A liquid absorbent foam material as claimed in claim 1, wherein the absorption rate at wetting is at least 0.5 ml/s, the liquid distribution capacity at an inclination of 30° is at least 16 g/g, and the liquid storage capacity measured through centrifuge retention capacity is at least 11%.

3. (Twice Amended) A liquid absorbent foam material as claimed in claim 1, having a first distribution of pores with a diameter less than 3 um for producing a gel liquid absorption determined as the total liquid amount in pores below 3 μ m according to pore volume distribution measurements of at least 4 g/g synthetic urine, and

a second distribution of pores with a diameter between 3 and 100 μm for producing capillary liquid absorption determined as the total liquid amount in pores between 3-100 μm according to pore volume distribution measurement of at least 8 ml/g.

4. (Twice Amended) A liquid, absorbent foam material as claimed in claim 1, wherein the foam material contains fibers in its pore system.

16
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5. (Twice Amended) An absorbent structure in an absorbent article, wherein the absorbent structure comprises a liquid absorbent open-cell foam material according to claim 1.

6. (Amended) An absorbent structure as claimed in claim 5, wherein said absorbent structure is comprised solely of said foam material.

7. (Twice Amended) An absorbent structure as claimed in claim 5, wherein the foam material has a three-dimensional anatomic shape.

Kindly enter new claims 8-15 as follows.

17
8. (New) A liquid absorbent open-cell polymer foam material as set forth in claim 1, wherein the absorbent article is a diaper, pant diapers, sanitary napkins, an incontinence guard, a wound dressing, or a bed protection.

9. (New) An absorbent structure in an absorbent article as claimed in claim 5, wherein the absorbent article is a diaper, a pant diaper, a sanitary napkin, an incontinence guard, a wound dressing, or a bed protection.

10. (New) A liquid absorbent foam material as claimed in claim 3, wherein the gel liquid absorption is at least 5 g/g synthetic urine.

11. (New) A liquid absorbent foam material as claimed in claim 3, wherein the capillary liquid absorption is at least 10 ml/g synthetic urine.

12. (New) A liquid absorbent foam material as claimed in claim 3, wherein the gel liquid absorption is at least 5 g/g synthetic urine and the capillary liquid absorption is at least 10 ml/g synthetic urine.

13. (New) A liquid absorbent material comprising an open-cell polymeric foam material, the foam material being suitable for use as an absorbent structure in an absorbent article, the foam material having a first distribution of pore sizes between 0 and 3 μm and a second distribution of pore sizes between 3 and 100 μm , the foam material having an absorption rate at wetting of at least 0.4 ml/s for a round sample having a 50 mm diameter, a liquid distribution capacity at an inclination of 30° of at least 15 g/g, and a liquid storage

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capacity of at least 9% measured through centrifuge retention capacity, for synthetic urine test liquid.

14. (New) A liquid absorbent material comprising an open-cell polymeric foam material, the foam material being suitable for use as an absorbent structure in an absorbent article, the foam material having pore sizes between 0 and 500 μm , the foam material having an absorption rate at wetting of at least 0.4 ml/s for a round sample having a 50 mm diameter, a liquid distribution capacity at an inclination of 30° of at least 15 g/g, and a liquid storage capacity of at least 9% measured through centrifuge retention capacity, for synthetic urine test liquid.

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15. (New) A liquid absorbent material comprising an open-cell polymeric foam material, the foam material being suitable for use as an absorbent structure in an absorbent article, the foam material having a first distribution of pore sizes between 0 and 3 μm and a second distribution of pore sizes between 3 and 500 μm , the foam material having an absorption rate at wetting of at least 0.4 ml/s for a round sample having a 50 mm diameter, a liquid distribution capacity at an inclination of 30° of at least 15 g/g, and a liquid storage capacity of at least 9% measured through centrifuge retention capacity, for synthetic urine test liquid.

REMARKS

In view of the foregoing amendments and the following remarks, reexamination, reconsideration, and allowance of the present application is respectfully requested.

Initially, the Examiner is thanked for returning an initialed copy of the Information Disclosure Citation submitted by the Applicant on November 24, 2000.

A certified copy of the priority document is submitted concurrently. The Examiner is requested to acknowledge receipt of the certified copy.

Objection to the Specification

Page 2 of the Office Action sets forth an objection to the specification as containing trademarks which are not capitalized. Applicants have amended the specification to adopt the Examiner's suggestions for capitalizing these terms. Applicants have also amended page 6 of the specification to replace the term "holder 3" with "holder 13", as suggested by the Office Action. Withdrawal of the objections to the specification is therefore respectfully requested.

Objections to the Claims

Pages 2 and 3 of the Office Action set forth objections to claims 2, 4, and 6. These claims have been amended as suggested by the Office Action. Withdrawal of the objections to the claims is therefore respectfully requested.

Rejection under 35 U.S.C. § 112, second paragraph

Pages 3-5 set forth a rejection of claims 1-7 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention.

The foregoing claim amendments address the concerns set forth at pages 3-5 of the Office Action, at paragraph numbers 9-13. Specifically, Claims 1 and 5 have been amended to remove the language "such as ... etc.". Claim 3 has been amended to address the antecedent basis concerns identified by the Office Action and to clearly identify the claimed range for the gel liquid absorption and the capillary liquid absorption. New claims 8-12 recite the subject matter previously included in Claims 1, 3, and 5.

Page 3 of the Office Action at paragraph 8 sets forth a rejection of Claims 1-7 under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. Applicants request reconsideration of this rejection.

At pages 3 and 4 of the Office Action, it is alleged that the claims merely set forth desired physical characteristics and "cover any conceivable combination of ingredients, either presently existing or which might be discovered in the future and which would impart the desired characteristics. Applicants respectfully disagree. Claim 1, as amended, is directed to a liquid absorbent material comprising an open cell polymeric foam. The foam material is suitable for use as an absorbent structure in absorbent articles. Further, the absorption rate at wetting of at least 0.4 ml/s for a round sample having a 50 mm

diameter, a liquid distribution capacity at an inclination of 30° of at least 15 g/g and a liquid storage capacity of at least 9% measured as centrifuge retention capacity, for synthetic urine test liquid. Accordingly, Claim 1 includes a preamble, a transitional phrase, and a recitation of structure. Further, breadth of a claim is not to be equated with indefiniteness. See, e.g., *In re Miller*, 441 F.2d 689, 169 USPQ 597 (CCPA 1971). According to the M.P.E.P § 2173.04, if the scope of the subject matter is clear, and if applicants have not otherwise indicated that they intend the invention to be of a scope different from that defined in the claims, then the claims comply with 35 U.S.C. § 112, second paragraph. The scope of the subject matter of Claims 1-7 is clear.

As an additional matter, the page 4 of the Office Action alleges that Claim 1 "appears to read upon materials that could not possibly be used to accomplish the purposes intended", citing the headnotes of *Ex parte Slob*, (PO Bd App) 157 USPQ 172. In *Ex Parte Slob* the rejection based on 35 U.S.C. § 112, second paragraph was based on the following recitation of one of the claim elements: "a liquefiable substance having a liquefaction temperature from about 40° C. to about 300° C. and being compatible with the ingredients in the powdered detergent composition". The rejection in *Ex Parte Slob* relied upon a material in a prior art reference which had a liquefaction temperature within the 40° to 300° degree range and which would not be compatible with the ingredients in the powdered detergent compound. In contrast, the Office Action does not identify any materials allegedly read upon by Claim 1 which could not be used to accomplish the purposes intended. Indeed, the sole reference applied by the Office Action, *Chen et al.*, is

directed to a fibrous structure which the Office Action alleges can be used as for the purposes of the present invention. Accordingly, Applicants respectfully submit that any reliance upon *Ex Parte Slob* is misplaced.

For at least these reasons, Claims 1-7, as amended, comply with 35 U.S.C. § 112, second paragraph. Accordingly, Applicants respectfully request withdrawal of the rejection of Claims 1-7 under 35 U.S.C. § 112, second paragraph.

Prior Art Rejections

Pages 6 and 7 of the Office Action set forth a rejection of claims 1-7 under 35 U.S.C. § 102(e) as anticipated by, or, in the alternative, under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 6,261,679 to *Chen et al.*

The Examiner states that the open-cell fibrous structure of *Chen et al.* is "substantially identical" to the presently claimed liquid absorbent open-cell polymeric foam material because "both absorbent materials are made of substantially the same materials using substantially the same method". Applicants respectfully disagree with this conclusion, and submit that the claims, either as originally written or as amended herein, are not anticipated by or obvious over *Chen et al.*

The Examiner has stated that *Chen et al.* teaches an open-cell fibrous absorbent structure that is "substantially identical" to the disclosed embodiments of the present invention. However, the preferred embodiments of the present invention define the pore structure as having an open cell polymeric foam with pores primarily between 0 and 500 μm . *Chen et al.* does not provide sufficient detail concerning pore sizes to make a

meaningful comparison with the present invention. Accordingly, Applicants submit that *Chen et al.* does not disclose an identical structure. Thus, the Examiner's assumption that the claimed parameters would be taught by *Chen et al.* is not supported.

On page 7 of the Office Action, the Examiner alleges that because the structure of *Chen et al.* would "inherently possess an absorption rate, liquid distribution capacity, and liquid storage capacity within Applicants presently claimed ranges".

Applicants take exception to the fact that the Examiner alleges the features of Claims 1-7 are presumed to be inherent to the cited patents, and that the burden is upon the Applicants to prove otherwise. First, inherency is a strict burden under U.S. patent law, which must be met by the Examiner, not the Applicants. The Patent Office must provide some evidence or scientific reasoning to establish the reasonableness of such belief before Applicants can be required to demonstrate the subject matter shown to be in the prior art does not possess the characteristics relied upon. *Ex Parte Skinner*, 2 USPQ2d 1788 at 1789 (BPAI 1986). Further, a feature is only inherent if it must occur as a result of the cited teachings. *Ex parte Cyba*, 155 USPQ 756 (POBA 1966). The fact that a situation may occur is insufficient to render an element inherent. Accordingly, to the extent that the rejection of Claims 1-7 is based on the inherent properties of *Chen et al.*, the Office Action has not established the required reasonable expectation that *Chen et al.* would provide the claimed properties.

Turning to the next to the specific examples in *Chen et al.*, at columns 43-48 several methods for forming fibrous materials are disclosed. However, none of these

methods appears to produce a material having the features of the liquid absorbent material of Claims 1-7.

For example, in *Chen et al.* examples 1 and 2, a foam-stabilized fibrous structure comprising fiber and egg white is combined. See col. 43, line 42 - col. 4, line 63. Neither fiber nor coagulated egg white is capable of forming a gel upon wetting. Therefore, the combination of fibers and egg white is unlikely to hold enough gel liquid to exhibit a liquid storage capacity of at least 9% measured through a CRC method.

In example 3 of *Chen et al.*, a foam is made from fibers and CMC, after which the foam is frozen and subsequently freeze dried. Thereafter, the material is treated with high temperatures to make insoluble the CMC. See col. 44, lines 65 - col. 46, line 52. The Applicants note that cross linking by means of an increased temperature is very difficult to control. *Chen et al.* does not provide sufficient disclosure to support a conclusion that the resulting fibrous material would have the pore distribution and absorption properties set forth in Claim 1.

In *Chen et al.* examples 4 and 5, the foam material includes kymene 450 instead of CMC. The process set forth in example 4 is believed to produce a material which almost solely absorbs liquid by capillary action. Therefore, almost no gel swelling will be present, and the liquid storage capacity is unlikely to be at least 9%, as recited in Claim 1.

Similarly, example 5 of *Chen et al.* replaces the CMC with a liquid latex binder material. This material also is not expected to result in gel swelling, and therefore the liquid storage capacity is unlikely to be at least 9%, as set forth in Claim 1.

Example 6 of *Chen et al.* discloses that a slurry of fibers with chemical binders such as cross linking agents or adhesives can be slurried with an ice or a frozen hydrate. This method appears to be unlikely to result in the pore distribution and liquid storage and distribution characteristics set forth in Claim 1.

Accordingly, Claims 1-7 are not anticipated by *Chen et al.*, and Examiner is respectfully requested to withdraw the rejection based on 35 U.S.C. § 102(e).

Pages 7-9 of the Office Action set forth an alternative rejection under 35 U.S.C. § 103(a) based on the disclosure of *Chen et al.* The Office Action acknowledges that claimed properties are not disclosed in *Chen et al.*, however concludes that the claimed properties would "obviously have been present once the open-cell fibrous absorbent structure of Chen was provided". Applicants respectfully disagree with this statement. As described above, there is insufficient detail in *Chen et al.* to determine whether the examples disclosed therein have a structure which would possess these properties.

According to *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991), a proper analysis under 35 U.S.C. § 103(a) requires consideration of whether the prior art would have suggested to those of ordinary skill in the art that they should make the claimed combination or device, or carry out the claimed process. In order to find such motivation or suggestion there should be a reasonable likelihood that the claimed invention would have the properties disclosed by the prior art teachings. *Id.* at 493. See, e.g. MPEP §2144.08. However, as described above, none of the Examples in *Chen et al.* appear to produce a liquid absorbent material having the claimed properties.

For at least the foregoing reasons, a *prima facie* case of obviousness has not been established.

Withdrawal of the alternative rejection of Claims 1-7 under 35 U.S.C. § 103(a) is therefore respectfully requested.

New Claims 8-12 are presented to recite subject matter previously included in Claims 1 and 3. Accordingly, Claims 8-12 are believed to be allowable for at least the same reasons that Claims 1 and 3 are allowable.

New Claims 13-15 are presented to recite additional features of embodiments of the invention. Support is found at the paragraph bridging pages 6 and 7, and the paragraph bridging pages 8 and 9, of the Specification. *Chen et al.* does not disclose liquid absorbent materials with the properties set forth in these claims, and particularly does not disclose the claimed pore sizes distributions set forth in these claims. It is respectfully submitted that Claims 13-16 are allowable over the disclosure of *Chen et al.*

For at least the foregoing reasons, it is believed that the patent application is now in condition for allowance. Reexamination, reconsideration, and an early indication of the allowability of the claims is respectfully requested.

Application No. 09/651,130
Attorney's Docket No. 010315-092
Page 16

If the Examiner has any questions regarding this Amendment, or about the application in general, she is cordially invited to call the undersigned attorney at the number listed below.

Respectfully submitted,

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